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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/851,285

05/08/2001

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EXAMINER

SALTARELLI, DOMINIC D

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,285

Applicant(s)

BIALK ET AL.

Examiner

Dominic D. Saltarelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/2/01, 4/15/04, 11/01/04, 12/20/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The serial numbers of the co-pending applications cited under "Cross Reference to Related Applications" should be provided.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12 and 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farry et al. (5,608,447, submitted by applicant Nov. 1, 2004) [Farry] in view of Opoczynski (5,519,830, submitted by applicant Nov. 1, 2004), Gorman et al. (6,137,793, submitted by applicant Nov. 1, 2004) [Gorman], and Dev et al. (5,559,955, submitted by applicant Nov. 1, 2004) [Dev].

Regarding claims 1 and 17, Farry discloses a broadband network having a hybrid fiber coax (HFC) network (col. 3, lines 5-12) having network elements operable for communicating telephony, data, and video signals with customer premises equipment (CPE) of subscriber households (col. 4, lines 36-51 and col. 6 line 49 – col. 17 line 15), the network elements including video equipment for communicating the video signals (fig. 2, video sources 200 and 250), a fiber

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optics network connecting the video equipment to a fiber optics node, and a coax cable network connecting the fiber optics node to the CPE of the subscriber households (col. 3, lines 5-12, wherein the node is shown in fig. 8, optical encoder/decoder 800).

Farry fails to disclose a host digital terminal (HDT) for communicating the telephony signals and a cable modem terminal system (CMTS) for communicating the data signals, and an HFC network management system comprising a service, design, and inventory (SDI) system having a database operable for storing data indicative of an inventory of the network elements and the CPE in the HFC network, for storing data indicative of configuration of the network elements and the CPE in the HFC network, and for storing data indicative of assigned capacity of the HFC network based on the configuration of the network elements and the CPE.

In an analogous art, Opoczynski teaches a host digital terminal (fig. 1, HDT 300) for communicating telephony signals over a network (col. 3, lines 44-57).

It would have been obvious at the time to a person of ordinary skill in the art to modify the HFC network of Farry to include a host digital terminal for communicating the telephony signals, as taught by Opoczynski, for the typical benefit of providing conventional means for distributing the telephony signals.

Farry and Opoczynski fail to disclose a cable modem termination system for communicating the data signals, and an HFC network management system

comprising a service, design, and inventory (SDI) system having a database operable for storing data indicative of an inventory of the network elements and the CPE in the HFC network, for storing data indicative of configuration of the network elements and the CPE in the HFC network, and for storing data indicative of assigned capacity of the HFC network based on the configuration of the network elements and the CPE.

In an analogous art, Gorman discloses a CMTS (col. 8, lines 39-46) for communicating data to customer premises cable modems over a network.

It would have been obvious at the time to a person of ordinary skill in the art to modify the HFC network disclosed by Farry and Opoczynski to include a CMTS, as taught by Gorman, for the typical benefit of providing a conventional means for distributing data signals to customer premises cable modems.

Farry, Opoczynski, and Gorman fail to disclose an HFC network management system comprising a service, design, and inventory (SDI) system having a database operable for storing data indicative of an inventory of the network elements and the CPE in the HFC network, for storing data indicative of configuration of the network elements and the CPE in the HFC network, and for storing data indicative of assigned capacity of the HFC network based on the configuration of the network elements and the CPE.

In an analogous art, Dev teaches a network management system including a service, design, and inventory [SDI] system having a database operable for storing data indicative of the configuration of all network elements

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(database manager 16, col. 3 line 66 – col. 4 line 2 and col. 5, lines 26-44) and for storing data indicative of assigned capacity of the network based on the configuration of the network elements (col. 5 line 66 – col. 6 line 12), providing the benefit of enhanced network management tools (col. 2; lines 35-58).

It would have been obvious at the time to a person of ordinary skill in the art to modify the HFC network of Farry, Opoczynski, and Gorman to include network management system comprising a service, design, and inventory (SDI) system having a database operable for storing data indicative of an inventory of the network elements and the CPE in the HFC network, for storing data indicative of configuration of the network elements and the CPE in the HFC network, and for storing data indicative of assigned capacity of the HFC network based on the configuration of the network elements and the CPE, as taught by Dev, for the benefit of providing enhanced network management tools to system operators of the broadband HFC network.

Regarding claims 2, 3, 18, and 19, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein Dev additionally discloses the data indicative of configuration of the network elements includes data indicative of physical and logical connections between all of the network elements (col. 5, lines 26-65).

Regarding claims 4 and 20, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein Dev additionally discloses the SDI system is operable to generate an SDI system report for the network elements and CPE's, the SDI system report including information about the network elements and CPE's (the reports are the data models generated that describe individual components, col. 5, lines 26-44 and col. 5 line 66 – col. 6 line 12).

Regarding claims 5 and 21, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein the data indicative of an inventory of the network elements and the CPE includes data indicative of subscriber households passed in the HFC network (the stored models include data down to the individual systems [Dev, geographic models, col. 12, lines 57-63], and thus having modified Farry in view of Dev, where Farry teaches a network which services individual households, Dev also thus teaches a household passed database indicative of said households).

Regarding claims 6 and 22, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 5 and 21, wherein the data indicative of subscriber households passed in the HFC network includes for each subscriber household data indicative of the fiber node connected to the CPE of the subscriber household and the coax bus connecting the subscriber

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household to the fiber node (Farry, as described above, discloses the fiber nodes, CPE of subscriber households, and the coax bus connecting them, and Dev discloses modeling all network elements and their interconnections as well in col. 5, lines 45-65, thus the subscriber households passed data includes data indicative of the fiber node and the coax bus).

Regarding claim 7, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system of claim 6, wherein the data indicative of the households passed in the HFC network further includes for each subscriber household data indicative of household key, household address, and household location (Dev teaches the model information includes key identifier information, col. 5 line 66 – col. 6 line 6 and geographic locations including physical address and location in a region or even the world, col. 5, lines 26-44).

Regarding claims 8 and 23, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein Dev additionally discloses the data indicative of an inventory of the network elements and the CPE includes data indicative of physical location (geographic location, col. 5, lines 26-44) and identification of the network elements (col. 5 line 66 – col. 6 line 12).

Regarding claim 9 and 24, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein Dev additionally discloses the data indicative of an inventory of the network elements and the CPE includes data indicative of profiles of the network elements and the CPE (col. 5 line 66 – col. 6 line 12).

Regarding claims 10 and 27, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein the system further includes an HFC network manager (Farry, fig. 1, level 1 gateway 160) operable for controlling the configuration of the network elements and the CPE in the HFC network (Farry, col. 4, lines 47-51), wherein the database of the SDI system updates the stored data indicative of the configuration of the network elements and the CPE in the HFC network (Dev, col. 5, lines 12-25) in response to the HFC network manager changing the configuration of the network elements and the CPE in the HFC network (a new connection established by the network manager represents new states for selected models in the network which then would be updated by the SDI system, Dev, col. 5, lines 12-25).

Regarding claims 11 and 25, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein Dev additionally discloses a fault manager (col. 10, lines 37-53) having

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an alarm visualization tool (col. 3, lines 55-65 and col. 8, lines 29-38) operable with the database of the SDI system (col. 3 line 66 – col. 4 line 2) for generating visual displays of the configuration of the network elements and the CPE in the HFC network (col. 12 line 47 – col. 13 line 46).

Regarding claims 12 and 26, Farry, Opoczynski, Gorman, and Dev disclose the HFC network management system and method of claims 1 and 17, wherein Farry additionally discloses an online provisioning application link [OPAL] (fig. 1, level 1 gateway 160) operable with the database of the SDI system for provisioning network elements with CPE based on the assigned capacity of the network elements (col. 7, lines 16-33).

4. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farry in view of Dev.

Regarding claim 13, Farry discloses a system for providing efficient management of hybrid fiber coax (HFC) network resources comprising an operations center (fig. 5, level 1 gateway 550), a server (fig. 5, information server 500), and a network connecting the operations center to the server (fig. 5, source distribution interface 110 which connects the server to the level 1 gateway), wherein the server includes an HFC network order manager for order management of HFC services provided by the HFC network and an HFC network inventory manager for inventory management of HFC network elements and

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customer premises equipment within the HFC network (fig. 5, level 2 gateway manages orders for services the manages the inventory [services provided] of the server from whence the services are provided, col. 11, lines 21-42).

Farry fails to disclose an HFC network design manager for design management of the HFC network elements and the customer premises equipment within the HFC network.

In an analogous art, Dev discloses a network design manager for design management of network elements within the network (col. 3 line 50 – col. 4 lines 16), providing the benefit of enhanced network management tools (col. 2, lines 35-58).

It would have been obvious at the time to a person of ordinary skill in the art to modify the system disclosed by Farry to include a network design manager for design management of network elements within the network as taught by Dev, for the benefit of providing enhanced network management tools to system operators of the network.

Regarding claim 14, Farry and Dev disclose the system of claim 13, wherein the HFC network inventory manager includes means for tracking the use of and availability of the HFC network elements of the CPE (Farry teaches the server, utilizing the level 2 gateway, authorizes and subsequently manages the connections between the information provider and the requesting user, col. 11, lines 21-42).

Regarding claim 15, Farry and Dev disclose the system of claim 13, wherein the HFC network order manager includes means for tracking the orders for HFC services (Farry teaches the server, utilizing the level 2 gateway, authorizes orders and subsequently manages the connections between the information provider and the requesting user, col. 11, lines 21-42).

Regarding claim 16, Farry and Dev disclose the system of claim 13, wherein the HFC network design manager includes means for creating an HFC network design (Dev, col. 3 line 49 – col. 4 line 16).

Conclusion

5. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Certificate of Mailing

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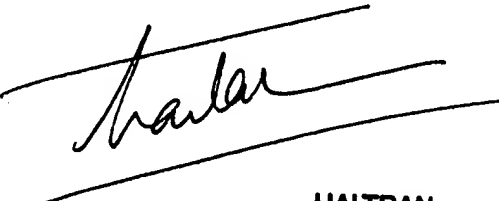
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D. Saltarelli whose telephone number is (571) 272-7302. The examiner can normally be reached on Monday - Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dominic Saltarelli
Patent Examiner
Art Unit 2611

DS

A handwritten signature in black ink, appearing to read 'HAITRAN', is written over two horizontal lines.

**HAITRAN
PRIMARY EXAMINER**